

# Research Methodologies and Methods

Swati Sharma

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# RESEARCH METHODOLOGIES AND METHODS

APPROACHES TO UNDERSTANDING SOCIAL REALITY



## Logic of Inquiry in Social Research

### INTRODUCTION

In this chapter, we will learn about the science of society i.e. sociology and will have some more knowledge about the world around us. We will discuss about Auguste Comte's (father of sociology) work, who had used the scientific approach and the nature of social world for the first time. Then we will proceed towards the use and importance of observation method in social sciences. Scientific observation helps in theory building and making higher levels of generalizations. The last part of the chapter will cover the logical and empirical understanding of social reality.

### CHAPTER AT A GLANCE

#### A SCIENCE OF SOCIETY

The roots of the subject's sociology are in European and Greek philosophies. Aristotle was the foremost sociologist who had given the prime source of reasoning of human mind, which we have received in tradition. We are not referring here of the works of Plato or Confucius or Mahabharata. In fact, we are here to understand the logic of social enquiry that is why the reference of Aristotle is given.

In historic period and for an extended period the scholars of logic had to fight to put the man and his reasoning ability and his mind over the supreme power of God. By 18th century in the Western countries it seems to be a lost battle this all continued till the renaissance period, then it was accepted that society is not a creation of God but it is a human construct which have its own objectives and it also changes over time and can be studied too.

Scientific study about society was considered only when it was accepted by people that society is man made. Scope of sociology as a scientific and guiding discipline, goes to the extent that derivation of knowledge through laws are reliable and valid. So with this we can find that sociology is included with other sciences as a scientific discipline. By testing and observing the similarity between sociology and scientific methodology used in natural sciences, we can infer out that sociology is scientific as natural sciences. We can also obtain the information about sociology if it is scientific and when does it follows/doesn't follow the methods of natural sciences. For finding it out, we have to go through different sets of methods used by sociologist and then we can increase the value and with assertion call sociology as a scientific discipline.

We usually fix a particular kind of or a unique status (high position) to the concept of scientific knowledge, the reason is that it represents the world as it is without any changes or modifications rather than what we want it to be. This implies that scientific knowledge makes us available the possibility of acquiring a true meaning and characteristics of social and natural world. This understanding is not on the basis of thoughts, or a judgement made without proofs. This we can find in the works of Comte. If we go through the developments in sociological methods and theories "Sociology" was coined by him. To have an in depth understanding of sociology as a science of society, it will be useful for us to study about Comte's work on sociology. It helps us to give a fair idea about scientific approach which early sociologist had followed. This approach of Comte helped sociology to develop into a reflexive science.

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**COMTE'S IDEAS  
ON THE NATURE OF SOCIOLOGY**

Comte's writing shows his involvement towards the methods of scientific thought and reasoning. He gave argumentative reasons for it, the ones who are an expert and scholars of science who have studied science related to natural world and had come to the conclusion that the nature of laws has a certain way of reacting in the different scenarios in the physical world, it was able to find the laws which expresses the behaviour of humans in social world. In his book, *Course of Positive Philosophy*, Comte had stated that laws directing the ways of behaving and reacting of individuals in society can be found through the construct of a positive philosophy of human social development. In other words, Comte explains social scientists can make use of the methods and in-depth understanding of the natural sciences as a pattern for the development of sociology.

According to Comte, The main target of science was not only to show the meaning or the why of things? He further explained that the ultimate aim of science was to make clear about how a particular thing is related to another one. Through this, we can understand that, perceivable facts are the principles part of positive science, which targets to set up a certain set of rules and regulations like relationships between occurrences through collection of factual and real information or data. Real information is extracted through observation, experimentation, comparison and prediction. The idea related to it is that after making a number of laws it could be easy to clear out the laws of relationship with one another.

Comte's positivism strongly supported the idea which states that science is the gradual increase in finding new laws and their inter-relationships with each other, so that science can be considered a specific law from where other laws can be generated. Comte assumed that all people were symmetrical and achievable as the natural world. For him, the method followed by the natural sciences is the perfect way to find the new laws influencing the social world. He was strongly in support of the development of new positive view, on the basis of methods of natural sciences.

According to Comte, the main work of sociology was to get the general information of the laws of social development. He stratified the laws into following categories:

1. **Laws of Coexistence or Social Static:** These laws governed the relationship between different parts of society and as such they determine the functions and inter-relationship between the various parts.
2. **Laws of Succession or Social Dynamics:** These laws governed the social change and required an exploration of the way the nature and function of social institutions changed over time.

There are several kinds of positivism, it is very important to get deep knowledge of fundamental debate of scientific enquiry or permanent and natural methodology of Comte's Positivism. We all know that Comte used the methods of 19th century natural sciences for positing of the scientific laws of natural science for the working and presentation of human development.

Comte in the making of Social Development, made some assumptions and observations, all his assumptions were according to the science of 19th century.

His first assumption was that societies would go through the process of origination of living things and their journey of developing is from uncomplicated to complicated. In this way societies slowly become complicated and develop into many parts, which perform defined functions. Then, Comte asked that if there is an increase in differences in the societies, which make it, break into small pieces. According to him, the process of social integration does not include different forms of mutual dependence.

From these assumptions he concluded that evolution is natural and a provable fact and is directed by the laws of development. Comte advocated that the main work of sociology was to find the laws of development by the process of:

1. Systematic observations
2. Collection of data or facts
3. Development of theories to explain the facts.

Comte's ideas are commonly known as inductive positivism. It can also be said that the 19th century positivism, was based on the base of inductive positivism. He gave three stages of evolution, they are as follows:

1. Age of Religion
2. Age of Metaphysics
3. Age of Reason

This stood in opposition to one of the facts that has been wrongly acknowledged by the church. Now it is going towards generations and the stratified society into Christians and non-Christians are considered as uncivilized and non-humans.

One thing which came out with the understanding of inductive positivism is how natural facts are similar or different from social facts. This comparison with the natural science presents a problem, in natural science things have material existence, in social science only humans and their nature is material, but the behaviour from outside shows less information about the explanations of behaviour. The existence of reasonable conclusion having objective reality is related to the notions of double parts exemplified in the philosophical notion of Cartesian duality.

Observation became a central method of concern for social scientist (for those who study the society

against the study of individuals). Philosophers, commonly known as “empiricists” give more importance to experimental facts and not on the topics of rationalist. The conflict between empiricism and logic was resolved with the conclusion that both will be needed for social reality. Now we have two ways of understanding social reality—inductive and deductive. Most of the social scientist now agree that both methods run simultaneously—make sense of what is observed empirically one has to depend on logics for interpretation, logic can’t be applied in vacuum.

#### **OBSERVATION IN SOCIAL SCIENCES**

Observations in social sciences also require the involvement of the observed. As a person who relies the senses, in the same manner (person/group of people who are under observation) have to be involved to know the meaning of their actions before making out an explanation for it. This explanation goes with every act of observation of society. This doesn’t mean that a person has to solely rely on explanation given by actors. Exact explanation in social sciences will circumscribe the observation, meaning and actor’s way of acting to a broad and specified concepts and relations, to have a real meaning, truth or explanation. Social scientist has invented methods for making the observation meaningful and scientific.

To know it more deeply, let us go through the history of what all includes in the data for sociologist and anthropologist who have studied culture and society. The nature of data is different from natural sciences, because what is it in our observation is a construct. According to Dan Sperber: “there is only one way to describe cultural phenomenon and that is by interpretation.”

Social scientist converted the data in a meaningful form, proposed by anyone. In the 18th and 19th century travelers, missionaries and administrators gathered data which was used earlier. Some of the data made the foundation of social theory, the ones which had not been done twice, societies shown in them have pass from the existence. In the 19th century the pressure was on the use of scientific methods of working and on the finding of universal laws. Sociology being a science of society, aims to discover universal laws instead of a broad generalization on human behaviour.

The early sociologist tried to discover the laws about how society runs and the basic idea was that the society has objective existence like all other natural object and it follows some laws and principles. Thinking that society has natural phenomenon was to be declared as unconnected from earlier formed concepts as an all together different entity. Society had been firmly established within religion and cosmology which made rules to be viewed as made and approved by God instead of the creation of human mind. The science of society has to come forward and prove that all such rule and

norms are man made, so it is necessary for sociology to follow the principle of casualty rather than following the God’s made laws. In other words all aspects of society have purposive existence which we can explain on the basis of rationality.

#### **LOGICAL UNDERSTANDING OF SOCIAL REALITY**

Several sociologists have made theories regarding what social reality means. The important feature of scientific investigation of social reality includes focus on true and testable source of data. The difference between observation and theory focuses on logical, consistent and testable parameters. According to Elser and Little, “Social Sciences research needs to discover regularities, derived from underlying causal properties of social phenomenon.” From studying thoroughly all this we can now say that social sciences don’t need scientific reasoning and explanation in terms of a particular or commonly occurring pattern same hypothesis, concluded by same data. All the data is confirmed as an integral part of the social science research.

#### **SELF-ASSESSMENT QUESTIONS**

##### **Q. 1. Why do we need scientific method?**

**Ans.** To know about social facts, ideas, knowledge we need scientific method to come to a conclusion. The sociologists test the observations and data collected by them to form theories. For this, we need to have scientific method. Scientific method helps in avoiding duplication of work and gives the exact information about a particular thing.

##### **Q. 2. Explain the nature of sociology as a science.**

**Ans.** Sociology is a scientific discipline because it derives knowledge and facts from strict rules and evidences which are testified and are reliable and valid. To extract facts scientific knowledge gives the possibility of gaining true understanding by testing facts which are not based on superstition or faith. To make a society objectively capable of testifying facts so that subjective facts can be tested basic criterions have to be fulfilled, like the criterion of ethical neutrality, following of the principles used in other social sciences, etc.

##### **Q. 3. What was the debate over science? Explain.**

**Ans.** Before renaissance, people were not ready to accept the scientific inventions and discoveries made by the philosophers and scientist about the nature, world and society. Great philosophers like Aristotle, Plato, Galileo etc. faced many thrashings from the people of society about their inventions. World was considered to be a creation of God. But in the 18th century after the advent of renaissance these facts were accepted by the society and the society was then considered to be created by human beings. With this scientific knowledge came into existence and the works of scientists and philosophers was also accepted by the people of society.







## Empirical Approach

### INTRODUCTION

The word empirical denotes information gained by means of observation, experience, or experiment. Empiricism stands in contrast with rationalism. According to rationalism knowledge is derived from introspection and deductive reasoning. The term refers to the use of working hypothesis that are testable using observation or experiment. In this sense of the word, scientific statements are subject to and derived from our experiences or observations. Empirical data is data that is produced by experiment or observation.

In this chapter, we will talk about empiricism and how the data is collected in social sciences with some rules and regulations and set of laws. Then we will discuss the problems faced by the researcher while applying empirical approach. And then will conclude after observing that it is important to understand social reality, it is also essential to find out how it came to be so.

### CHAPTER AT A GLANCE

#### EMPIRICAL APPROACH

It is essential to make it clear to the students in the beginning that you may find many followers of empiricism and on the other hand there are also some of the social scientists who believe in empiricism but don't follow the method fully. It implies social scientist don't follow its theoretical grounds and don't sanction it as a discipline. Yet they find it adequate as a method to study.

Empirical approach means collection of facts through observation and methods of data collection. Dissimilarity in opinions and methods exist, whether a person relies on the data collected by a specific scientific method or to rely on the data collected by a common man. Earlier sociologist like Spencer, Durkheim, Auguste Comte, etc., depended largely on the data collected by the travellers, missionaries who cross various boundaries and provinces. The focus at that

time was on sensible practice of investigation. The scientists kept their base on their instinctive findings to choose data and evaluate it. Then the pressure came to collect and analyze data by scientific methods, where there are prescribed rules and the data should be valid, dependable and faithful.

#### RULES OF DATA COLLECTION

Durkheim in his book *Rule of Sociological Method* documented that the information must be accumulated by keeping rules in the mind of the researcher. Social facts have an exterior subsistence and they should be considered distinct from the image in the mind. Descartes laid the base of scientific method by the rule of doubt and supported the approach of commencing by doubting the truth of everything. So, we can say that the real scientific approach relies on truths and doesn't give consent to anything which doesn't have proofs. Early sociologist relied on second hand data only. Data collection is a function of the scientific method and cannot be put out of place from the procedure of understanding.

#### CULTURAL RELATIVISM

Cultural relativism is the principle that an individual human's beliefs and activities should be understood in terms of his or her own culture. Cultural relativism involves specific epistemological and methodological claims. Cultural relativism is the product of an individual's way of thinking. He should also agree to the fact that anything which is not a part of his own culture is not improper or eccentric. An object can be defined according to his outer look, his observable nature. An extremely significant component of categorizing was how a person has described a specific quality of the other person or an organization. Most of the times the characteristics may keep on continuing concealed or unnoticed if a person looks for external similarities only. So, the explanation of "external visibility" has to be implemented with great carefulness.